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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,023	03/17/2004	Martin H. Rattner	03226.383001; SUN040155	5131

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OSHA LIANG L.L.P./SUN
1221 MCKINNEY, SUITE 2800
HOUSTON, TX 77010

EXAMINER

JEAN GILLES, JUDE

ART UNIT	PAPER NUMBER
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2143

NOTIFICATION DATE	DELIVERY MODE
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08/05/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lord@oshaliang.com
DOCKETING@OSHALIANG.COM
hathaway@oshaliang.com

Office Action Summary	Application No. 10/803,023	Applicant(s) RATTNER ET AL.	
	Examiner JUDE J. JEAN GILLES	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 13, 14, 16, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 4, 6-12, 15, 17-20, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to communication filed on 03/17/2004.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3, 5, 13, 1, 16, 21, and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferri et al (Ferri) U.S. Pub. No. 20050204040, In view of Geye et al (Geye) U.S. Pub. No. 20050108714

Regarding Claim 1, Ferri teaches a system (fig. 4) comprising:

a cluster having a plurality of nodes wherein at least one of the nodes is a

candidate node (par. 0024; see the role of the grid manager in selecting candidate resources) ;

a plurality of resource groups (par. 0005 ; see that the group of nodes and dedicated resources);

a clustering mechanism executing on the cluster configured to activate a first resource group of the plurality of resource groups on the candidate node (fig. 4, the compute nodes are candidate nodes and resources such as LINUX, AIX can be activated).

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Although Ferri discloses substantial features of the invention, Ferri does not teach explicitly “a resource group affinity of the plurality of resource groups, wherein the resource group affinity comprises a unidirectional association between the first resource group of the plurality of resource groups and a second resource group of the plurality of resource groups”. Nonetheless, this feature is well-known in the art and would have been an obvious modification to the system of Ferri as evidenced by Geye.

In an analogous art, Geye discloses an affinity mask represented by a set of processors adjusted periodically to execute the application group with unidirectional association within the resource or application groups (See (Geye par. 0031, 0034 and 0057). In an attempt to fully utilize the resources according to their priority based on system's need, this approach makes sense.

Given this feature of Geye, a person of average skill in the art would have recognized the need and advantages of modifying the system of Ferri to employ the features of Geye, for the purpose of dynamically add and remove processors/resources according to system's needs rather through random assignment, thereby maximizing the overall system performance (see Geye, par. 0005-0007). Accordingly, claim 1 is rejected.

Regarding claims 2, 3, 5, 13, 1, 16, 21, and 22 the combination Ferri-Geye discloses:

2. The system of claim 1, wherein the plurality of resource groups comprises:
a plurality of resources configured to provide at least one service; and
a monitor configured to observe the activity of the at least one service (see Ferri, par. 0033).
3. The system of claim 1, wherein the resource group affinity further comprises:
an affinity type; and
an affinity strength (see Geye; par. 0066).
5. The system of claim 3, wherein the mutual strong affinity strength comprises only a positive affinity type (see Geye; par. 0066).
13. The system of claim 1, wherein one of the plurality of resource groups is activated prior to any other resource group if the one of the plurality of resource groups has no resource group affinity (see Geye; par. 0034, 0066).
14. The system of claim 1, wherein a least constrained resource group of the plurality of resources groups is activated prior to more constrained resource groups (see Geye; par. 0034, 0066).
16. A method to activate a first resource group (see Ferri; fig. 4) comprising:

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determining a plurality of candidate nodes for the first resource group (par. 0024; see the role of the grid manager in selecting candidate resources) ;

eliminating any of the plurality of candidate nodes that violates a strong affinity of

the first resource group, to generate a plurality of affinity candidate nodes (see Geye; par. 0034, 0066).

determining a composite value for each of the plurality of affinity candidate nodes;

and

sorting the plurality of affinity candidate nodes based on a pre-defined priority

using the composite values to obtain a sorted list (see Geye; par. 0046). The same motivation and reason to combine for the rejection of claim 1 is also valid for this claim.

21. A computer system for activating resource groups, comprising:

a processor; a memory; a storage device (see Ferri; fig. 4 and 6 pr. 0005; see Geye, par. 0022); and

software instructions stored in the memory for enabling the computer system

under control of the processor to:

determine a plurality of candidate nodes for the first resource group (par. 0024; see the role of the grid manager in selecting candidate resources) ;

eliminate any of the plurality of candidate nodes that violates a strong affinity of the first resource group to generate a plurality of affinity candidate nodes (see Geye; par. 0034, 0066).

determine a composite value for each of the plurality of affinity candidate nodes (see Geye; par. 0034, 0066); and

sort the plurality of affinity candidate nodes based on a pre-defined priority

using the composite values to obtain a sorted list (see Geye; par. 0046). The same motivation and reason to combine for the rejection of claim 1 is also valid for this claim.

22. The system of claim 21, further comprising:

software instructions stored in the memory for enabling the computer system under control of the processor to activate the first resource group on at least one of the plurality of affinity candidate nodes based on the sorted list see Geye; par. 0046).

Allowable Subject Matter

3. **Claims 4, 6-12, 15, 17-20, 23 and 24** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. ***This action is made Non-Final.*** Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3301.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0800.

/Jude J Jean-Gilles/

Primary Examiner, Art Unit 2143

July 31, 2008